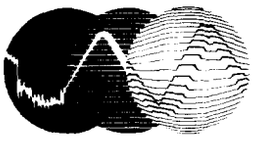

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October 21, 1993

Office of the Secretary
Federal Communications Commission
1919 M Street, NW
Washington, DC 20554

RE: ET Docket 92-9, Second Report and Order

Dear Sir/Madam:

Enclosed herewith is 1 (one) original, and 5 (five) copies of our petition for clarification or partial reconsideration of the Second Report and Order in ET Docket 92-9.

Sincerely,

COMSEARCH

Christopher R. Hardy
Director
Transmission Planning Services

CRH:msw

Enclosure

No. of Copies rec'd 0+5
List A B C D E

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Redevelopment of Spectrum to	)	CC Docket No. 92-9
Encourage Innovation in the	)	RM-7981
Use of New Telecommunications	)	RM-8004
Technologies	)	

To: The Commission

PETITION FOR CLARIFICATION OR PARTIAL RECONSIDERATION

Comsearch hereby submits a petition for clarification or partial reconsideration of the Second Report and Order in ET Docket 92-9, Federal Communications (FCC) 93-350, released August 13, 1993, and published in the Federal Register on September 22, 1993 (Fed. Reg. 49220).

Comsearch has been an active participant in Docket 92-9 since its inception. During the course of the proceeding, we took part in numerous industry discussions and helped formulate key aspects of the Second Report and Order ("REPORT"). In this regard, we applaud the Commissions efforts at bringing to fruition a very complex and difficult endeavor. Upon review of the REPORT , several items were identified in Appendix A which we feel require further clarification and/or correction.

21.107 Transmitter Power

In the table on page 35 of the REPORT , a maximum allowable EIRP of +50 dBW is proposed for the frequency bands 3,700 to 4,200 MHz and 10,700 to 11,700 MHz. The current Part 21 Rules contain no maximum EIRP for these bands. In CFR Part 25 of the Rules, the terrestrial station EIRP used to determine the frequency coordination distance in the 4, 6, and 11 GHz frequency bands is +55 dBW. This corresponds with Table II of Appendix 28 of the International Telecommunications (ITU) Radio Rules and Regulations, 1990. We believe that the +55 dBW EIRP should be used since it is the industry standard.

In footnote (3) on page 35, stations operating in the frequency band 10,600 - 10,800 are required not to have effective isotropically radiated powers (EIRP) in excess of +40 dBW. There appears to be a typographical error in the frequency range since the existing Part 21 Rules show the DTS band segment of 10,600 - 10,680. In addition, the 10,600 - 10,800 MHz range of frequencies would include a section of the 11 GHz band. This conflicts with the +50 dBW maximum allowable EIRP shown in the table for the band 10,700 - 11,700. The EIRP limitation in the 10,600 - 10,680 band appears to have been intended to reduce overall interference in the band used (primarily) by DTS user stations. However, since new DTS systems are no longer allowed in the 10 GHz band, and few DTS systems are presently authorized, new point-to-point systems should be allowed a maximum EIRP of +50 dBW. Under the proposed channel

plans, many of the listed frequency pairs would have a maximum EIRP of +50 dBW for one frequency but a maximum EIRP of only +40 dBW for the other frequency. Since point-to-point microwave paths are typically designed with a similar EIRP at each end, we propose that the +40 dBW restriction be removed by deleting the reference to the 10 GHz band in footnote 3.

21.108 Directional Antennas

In the 6 GHz band (5925 - 6425 and 6525 - 6875), the Commission has imposed new category A and B standards to become effective June 1, 1997. The new standards appear to be a consolidation of the existing antenna standards found in Rule Parts 21 and 94. Comparing the Category A standards which apply after June 1, 1997 reveals both the lower and upper 6 GHz standards to be identical. However, for Category B antennas, there is a lessening of the radiation suppression requirements in 1997 for the upper 6 GHz band and an increase in requirements for the lower 6 GHz band. (See figures 1 through 4.) Following the logic applied to the Category A standards the Commission should impose the more stringent upper 6 GHz band category B standards across the entire 6 GHz band. Thus it appears that the discrimination values for Category B in the upper 6 GHz band after June 1, 1997 should be 39 and 45 dB for 100° to 140° and 140° to 180°, respectively. We agree with the Commissions assessment that the antenna standards need further study and Comsearch will be working to formulate new requirements within industry groups such as the NSMA and TIA.

Standard A Antennas
(before June 1, 1997)

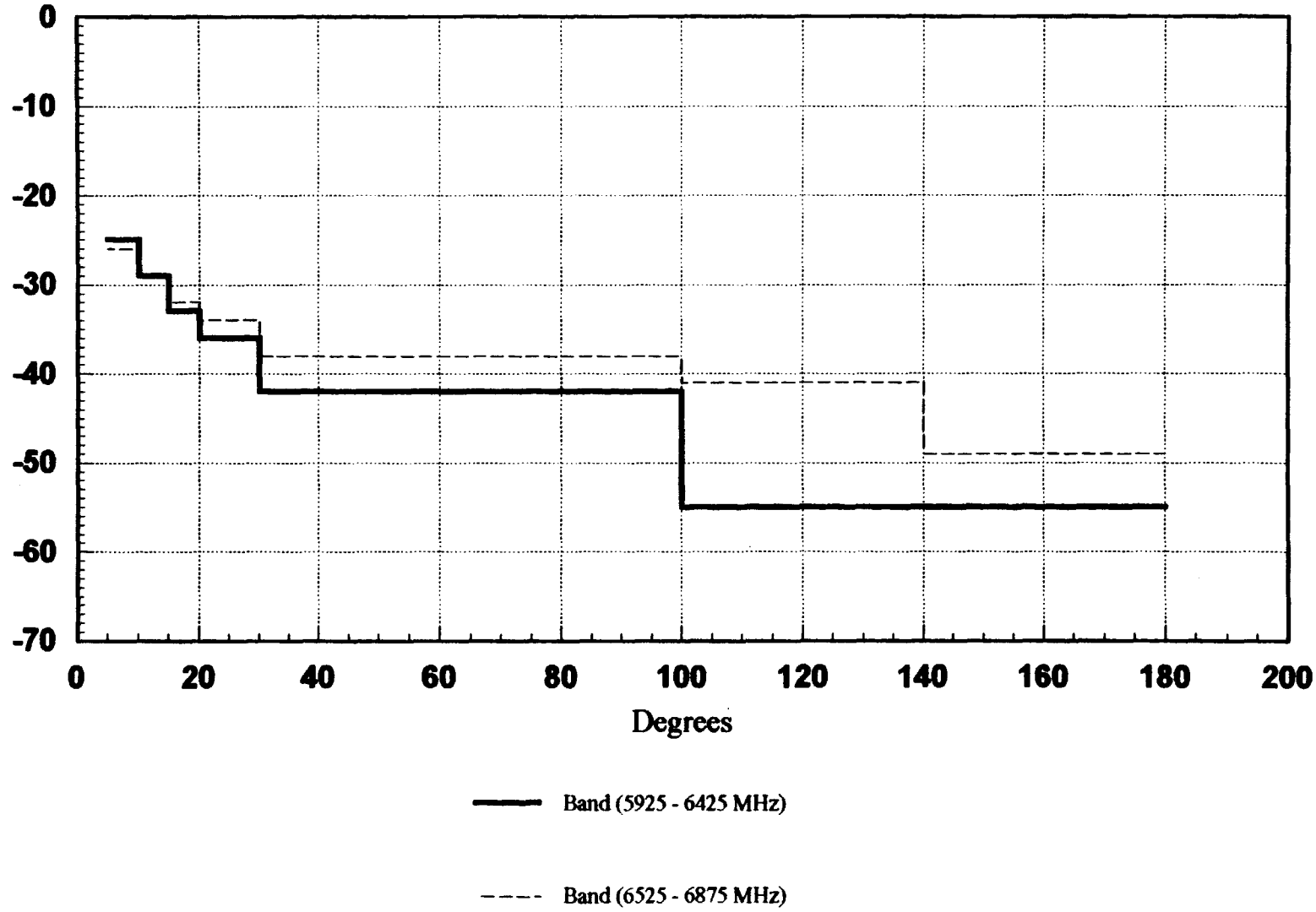


FIGURE #1

Standard A Antennas
(after June 1, 1997)

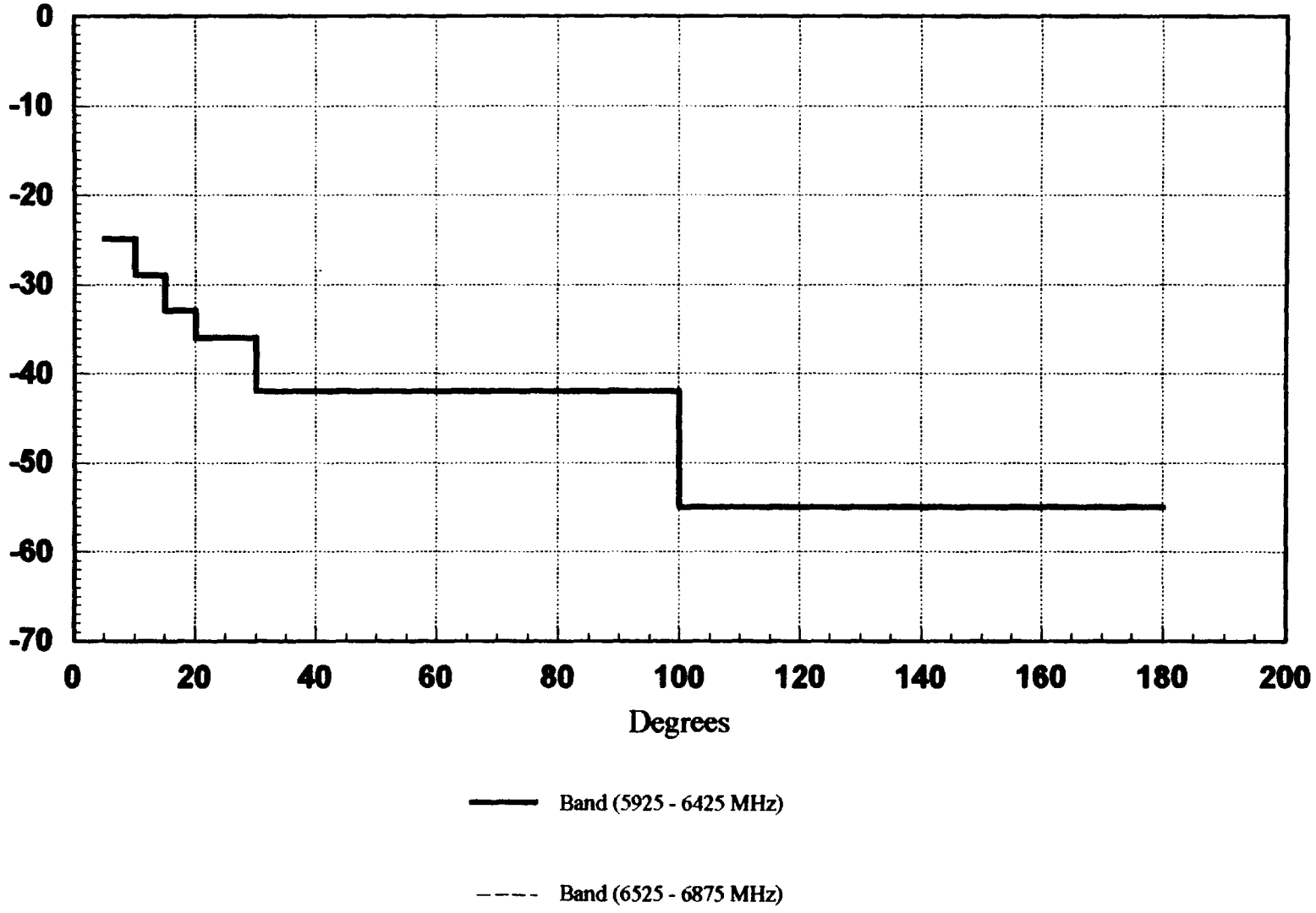


FIGURE #2

Standard B Antennas
(before June 1, 1997)

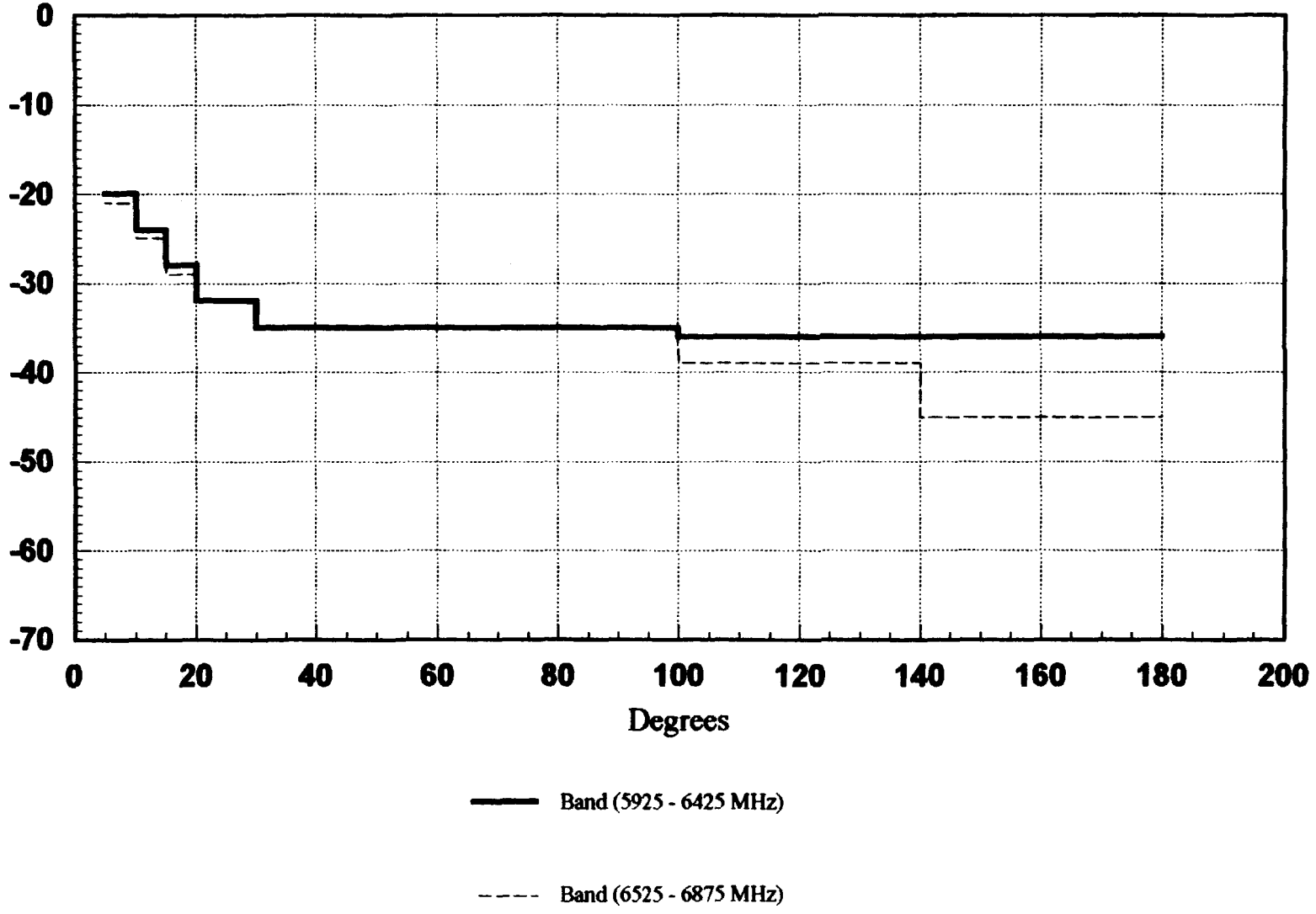


FIGURE #3

Standard B Antennas
(after June 1, 1997)

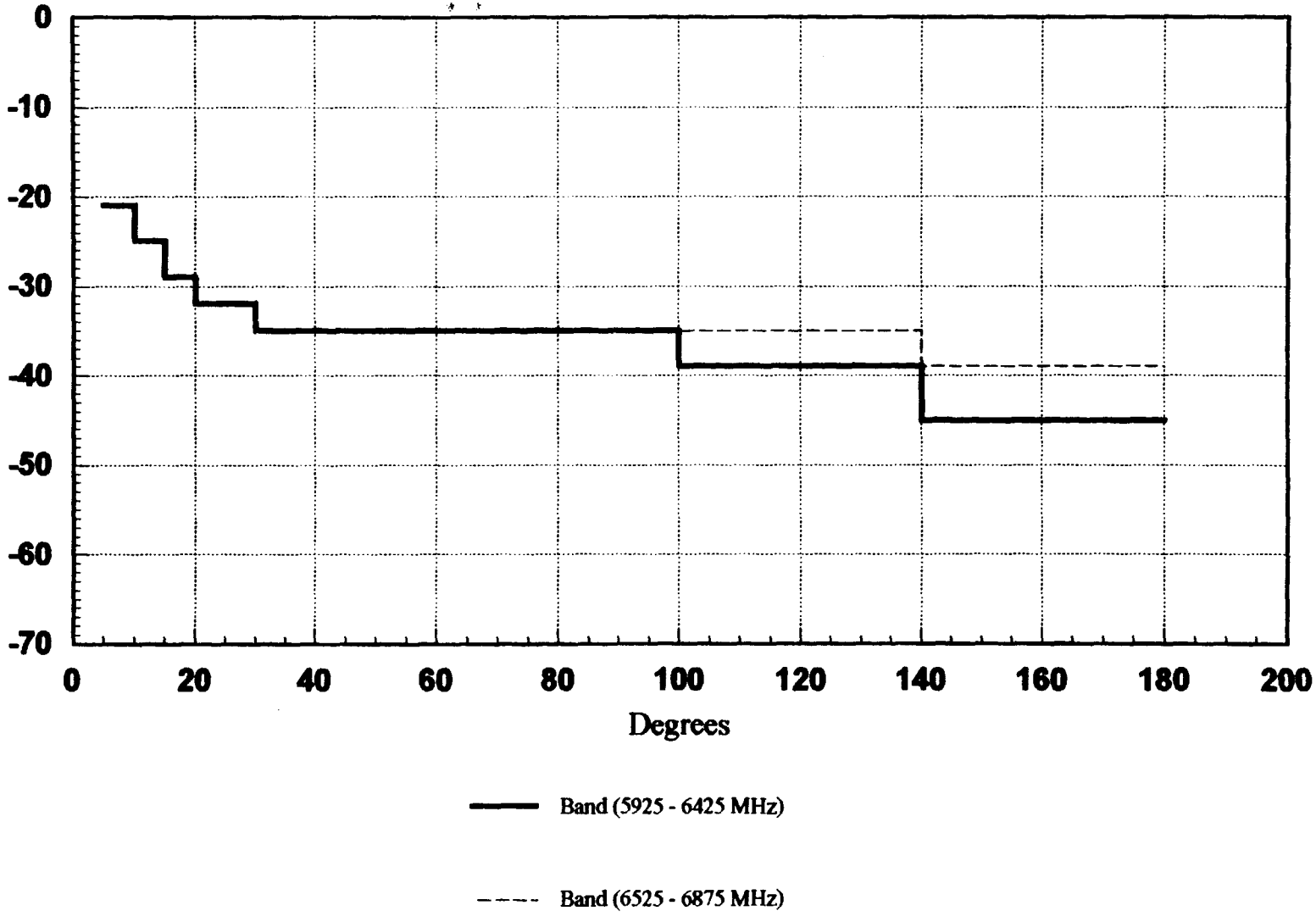


FIGURE #4

21.710 Frequencies

In order to implement rechannelization effectively, a certain amount of flexibility in the administration of frequency plans is necessary. Clarification is requested regarding the requirement for pairing of frequencies as shown in Appendix A of the REPORT. As frequency planners, we foresee the need to use frequency pairs other than those listed. For example, many operating long haul carriers in the lower 6 GHz band use all eight 30 MHz channel pairs with opposite polarization of the paired frequencies. To coexist in this environment, a user proposing a single frequency pair could find it necessary to use opposite polarization at each end of a path. This would require the expense of dual polarized antennas and additional waveguide and would not result in efficient use of the spectrum. Because of this and similar situations, we would prefer to see the Commission administer the listed frequency pairings as preferred but not mandatory. At the very least, language similar to that found in Part 94.15 (d) should be added to Part 21: "Operation on other than the listed frequencies may be authorized where it is shown that the objectives or requirements of the interference criteria prescribed in 94.63 could not otherwise be met to resolve the interference problems".

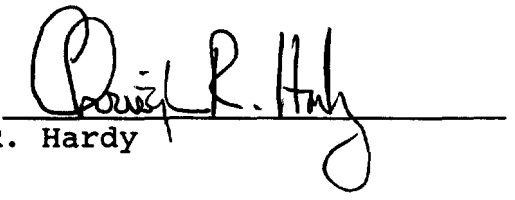
The text in Footnote (1) on page 62 of the REPORT supporting the continued use of current channel plans by licensed, operating or applied for systems is vague. Comsearch fully supports this approach, but would like further clarification as to what kinds of

changes to a system will be authorized under the old channel plans. For example, does this apply only to established paths or are new paths which connect to an existing system also considered. In addition, what happens when interference conflicts from the surrounding environment require the use of the old channel plans? Comsearch favors a flexible approach which favors the use of the new channel plans but allows for the continuation of existing plans where needed. Footnote (1) needs to be amended to include the 4 GHz band. The Commission concluded in paragraph 16 of the REPORT that the existing 20 MHz channel plan at 4 GHz should not be modified. While it is true that the channels are unchanged, the 4 GHz channel plan included in Appendix A is a substantial modification of the current industry accepted plan. The new high - low pairing of frequencies is based upon a transmit to receive (T/R) separation of 280 MHz while the existing interleaved plan employs a 20 MHz T/R separation. The introduction of this new plan into the existing environment may require the use of non standard frequency pairs and/or the use of the current plan when interference problems dictate.

Comsearch is pleased at the expeditious and practical way the Commission has handled the very difficult and complex issues covered in the REPORT. With further clarification and corrections as outlined above, the REPORT provides a sound framework for the successful relocation of 2 GHz users. Comsearch considers the REPORT as the beginning of a much needed process to consolidate and

update the Rules pertaining to point-to-point microwave users. We look forward to the Commission continuing these consolidation efforts in future proceedings.

Respectfully Submitted,
COMSEARCH

Prepared By: 
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